

Process for the production of omega -amino-1-hydroxyalkylidene-1,1-bisphosphonic acid

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A process for the preparation of a omega -amino-1-hydroxyalkylidene-1,1-bisphosphonic acid of the formula wherein n is an integer from 3 to 5, consisting essentially of the steps of reacting an aminocarboxylic acid of the formula $\text{NH}_2\text{-CH}_2\text{-}(\text{CH}_2)^m\text{-COOH}$ wherein m is an integer from 2 to 4, with a phosphonating reactant selected from the group consisting of (a) a mixture of phosphorous acid and PCl_3 , (b) a mixture of phosphorous acid and PCl_5 , and (c) a mixture of phosphorous acid and POCl_3 , hydrolyzing the reaction mixture with a strong acid which does not oxidize aminophosphonic acids, and recovering said omega -amino-1-hydroxyalkylidene-1,1-bisphosphonic acid.

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